

Seddon

Shark Refuse collection vehicle

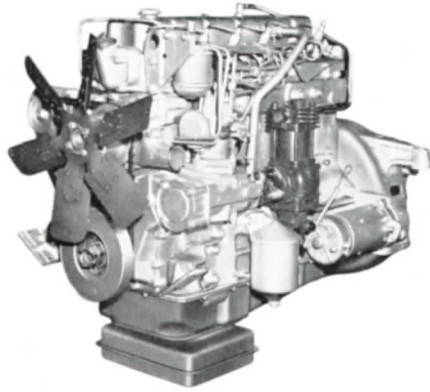


SEDDON MOTORS LTD
WOODSTOCK FACTORY, OLDHAM

Telephone: 061-624 6041 Telex: 66-398

13 Four municipal chassis

(15 TONS GVW-15240 kgs)



ENGINE

Model 354 compression ignition engine, six cylinder, watercooled, 120 bhp at 2,800 rpm.

Maximum torque 260 lb/ft at 1,250 rpm (35.9 MKG).

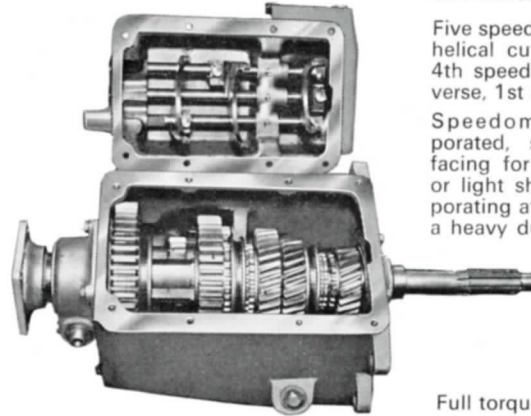
Bore $3\frac{7}{8}$ in
98.4 mm

Stroke 5 in
127 mm

Cu. capacity 354 cu. in
5.8 lit

Compression ratio 16:1

Sump capacity 3 gall
13.63 lit



GEARBOX

Five speed constant mesh with helical cut gears for 3rd and 4th speeds, spur gears for reverse, 1st and 2nd speeds.

Speedometer drive incorporated, standard SAE side facing for tipping gear pump or light shaft PTO and incorporating at rear end of layshaft a heavy duty shaft drive PTO.

Ratios:

1st and rev 6.94:1

2nd 3.79:1

3rd 2.25:1

4th 1.48:1

5th 1.00:1

Full torque PTO 0.915:1

CLUTCH

Single dry plate, 13 in (330 mm) with cushioned hub and tangential strap mounting between pressure plate and cover assembly. Mechanical operation.

PROPELLER SHAFT

Tubular balanced shafts with Hardy Spicer needle roller bearing universal joints. Long wheelbase models fitted with divided shaft and centre steady bearing cushion rubber mounted.

FRONT AXLE

A one piece I section beam, forged and heat treated. Drop forged stub axle swivels mounted on parallel king pins, plain bushes top and bottom, roller bearing thrust race. Hubs mounted on adjustable taper roller bearings. Drop forged steering levers.

REAR AXLE

Fabricated banjo casing with spiral bevel drive, the bevel wheel supported against overload by an adjustable thrust pad, the bevel pinion straddle mounted on roller bearings with provision for adjustment. Fully floating hubs mounted on adjustable taper roller bearings, half shaft with splined end flanges. Axle ratio 7.02:1.

STEERING GEARBOX

Precision cam and triple roller, ratio 24.7:1. Steering wheel lock-to-lock $6\frac{1}{4}$ turns. Taper splined sector shaft with forged and heat treated drop arms. Turning circle 62 ft 0 in (19 metres) on both locks on 14 ft 8 in (4.5 metres) wheelbase model. Power steering optional extra.

BRAKES

Revised air brake system which fully complies with MOT requirements. Dual air lines for service and auxiliary braking system, both circuits fully independent and fed from separate air receivers each protected by non-return valves. Two leading shoe brakes fitted with wedge type expander and adjuster units. Brake shoes $15\frac{1}{2}$ in \times 6 in (394 mm \times 153 mm) front, $15\frac{1}{2}$ in \times 7 in (394 mm \times 178 mm) rear, total lining area 789 sq in (5,090 sq cm). Diaphragm piston type wheel brake chambers for dual line brake operation, flange mounted for direct-on application, dust and waterproof. Six cfm compressor with separate governor valve, sensing chamber for three air receivers, dual concentric foot brake valve, hand control valve for the auxiliary brake system, three air pressure gauges and low pressure warning device. Single-pull parking brake to rear wheels only.

SUSPENSION

Semi-elliptic springs front and rear, close shackled at the forward end, rear springs fitted with slipper ends at trailing end. Front springs 8 leaves, rear springs 8 leaves plus 7 helper leaves, 3 in wide (76.2 mm). Front telescopic shock absorbers as standard. Rear shock absorbers as an optional extra.

WHEELS AND TYRES

B6.5 ventilated disc steel wheels three piece split ring type fitted with 9.00-20 14-ply or radial-ply equivalent tyres and tubes. All wheels interchangeable, 10 stud fixing. Winch type spare wheel carrier.

ELECTRICAL

12-volt system with negative earth. Latest two brush dynamo with compensated voltage control, axial type starter motor, sealed beam headlights, side, stop and tail lights, flasher lights with steering column control and repeater lamp, horn, dual wipers and cab interior light. A fresh-air heater and demister is an optional extra. All wiring harness carried out in braided or plastic covered cable to conform to SMMT standards. Heavy duty battery. Engine mounted alternator—optional extra.

FUEL TANK

Capacity 30 gallons (136 litres). All fuel lines in fracture-resistant extruded nylon.

General Description

The Seddon Shark is the latest type of continuous loading refuse collection vehicle, mounted on the Seddon 13: four rigid chassis wheelbase 14 ft-8 in.

Over 2,500 Seddon-Shark refuse collection units are in operation on the Continent and the United Kingdom. THE STANDARD SHARK on a four-wheel chassis with a nominal body capacity of 18 cubic yards is manufactured at the Beaumaris works of CAMMELL LAIRD (ANGLESEY) LTD.

Very low maintenance costs have contributed to the success of the SHARK and more than 2,500 have been sold in Europe alone.

THE SHARK can achieve a compression ratio of up to 4:1 depending on the type of refuse by crushing and shredding as the material is loaded, by compaction within the continuous rotating drum and by the action of the spiral guide plate on the rear door which subjects the refuse to intensive and progressive crushing.

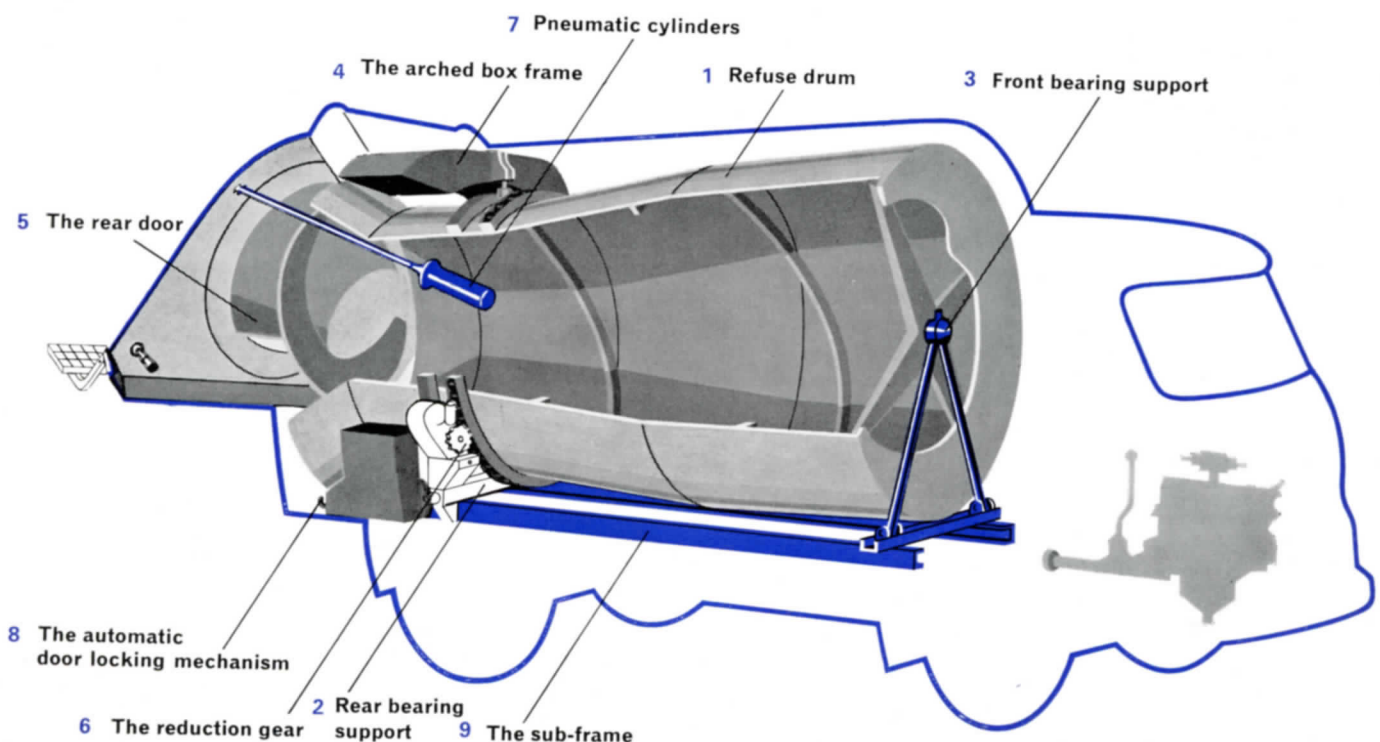
Advantages

1. The most important advantage of the 'Shark' is the extreme simplicity of the continuous loading mechanism which reduces maintenance costs to an absolute minimum.
2. Loading is continuous and without stopping. Refuse is taken as fast as it can be loaded, right up to the end of the load and the last bin.
3. The loading height is extremely low, but varies according to chassis, i.e. 3' 3" to a maximum of 4' 3". Ground level loading is, therefore, always possible which, together with the large hopper opening, makes loading much easier for the men.
4. Bulky articles are broken up in the loading hopper before entering the drum.
5. The loading hopper remains empty throughout collection and is not affected by the level of refuse in the drum itself. The drum is absolutely free of moving parts, and its air space is 100% available for refuse. There is no capacity loss.
6. Paper and plastic sacks are shredded on entry to the main body.
7. The body is self-cleaning throughout operation, hence there is no interior corrosion whatsoever. Hosing out is, therefore, unnecessary.
8. The refuse absorbed by the 'Shark' is permanently reduced, i.e. low density refuse is transformed *permanently* to high density loads. This is achieved by:
 - (a) crushing and breaking on entry into the drum,
 - (b) the continuous falling, agitation and mixing which takes place throughout the collecting period,
 - (c) subjecting the refuse to intensive and progressive breaking by the spiral plate.
9. The 'Shark' discharges its load horizontally, no tipping is involved. Consequently no chassis strains are experienced at the tip, and no extra weight is imposed on the rear axle. The 'Shark' can be reversed to the extreme edge of the tip face without danger. Because of these circumstances, twin axled chassis with large capacity 'Shark' bodies for bulk transfer of refuse can safely be used at open tips.
10. The thoroughly mixed and high density refuse discharged greatly aids final disposal, whatever the method e.g.
 - (a) there is less bulk at the controlled tip and settlement is more rapid.
 - (b) transfer by road, rail or barge is far more economical.
 - (c) the refuse is more controllable and due to its broken down condition, blockages of conveyors and hoppers are eliminated
 - (d) the mixed condition of the refuse aids incineration considerably, due to the elimination of abrupt high and low 'flash points'. An even feed to the incinerator is also promoted.
 - (e) the final product is better for composting schemes and would assist any further pulverization process.
11. There is minimal risk of fire with this type of body.
12. The vehicle is easily adapted for automatic dustless loading and bin lifting systems by means of a hinged door which houses the automatic dustless loading and bin lifter systems. Normal bin collections can be reverted to without delay, and the vehicle can be used as a dual purpose refuse collector.

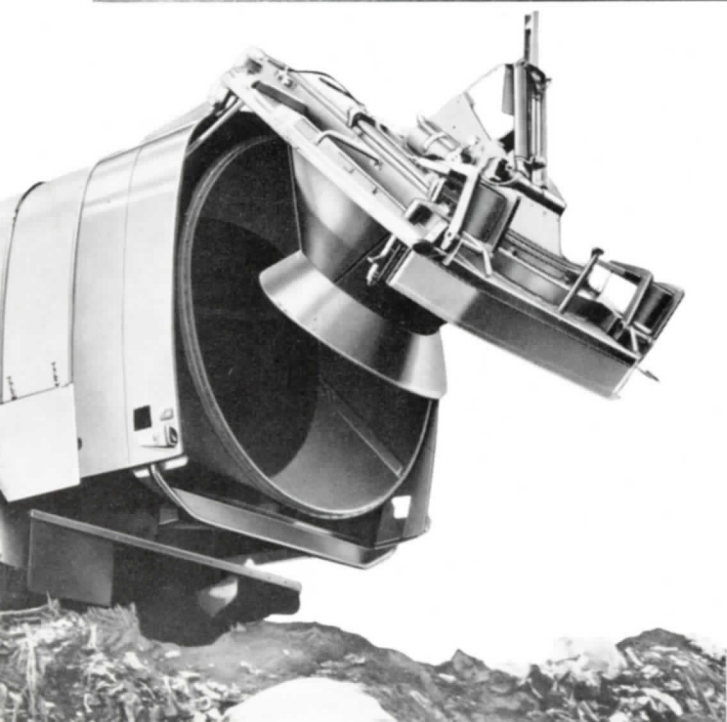
Operation

Bins are emptied into the hopper at the rear of the vehicle, the elevating ribs carry the refuse to the entrance of the main drum from where it is forced into the drum by the special guide. The refuse cannot return, and the hopper is, therefore, continuously emptied and available for further intake. The machine will "take it" as fast as the team can "give it".

Discharge is achieved without tipping by merely opening the rear door and reversing the rotation of the drum. The rear door is opened by two single air cylinders, and the total discharge of the refuse is effected in approximately two minutes. The rear door closing automatically under air pressure.



Service proven, over 2,500 working on the Continent and the United Kingdom



Chassis Manufacturers

SEDDON MOTORS LTD

WOODSTOCK FACTORY, OLDHAM.

Telephone: 061-624 6041 Telex: 66-398



Sole distributors in Great Britain

RONALD PERHAM LTD

88 CLAPHAM ROAD, LONDON SW9

Telephone: 01-735 9456

Body Manufacturers

CAMMELL LAIRD (ANGLESEY) LTD

BEAUMARIS, ANGLESEY, NORTH WALES

Telephone: Beaumaris 431 Telex: 61295